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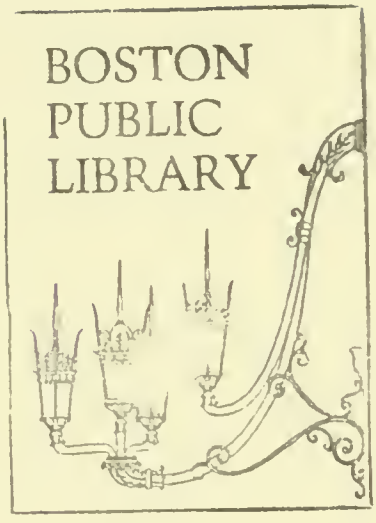
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MAY 20, 1970

SOUTH BOSTON WATERFRONT-INDUSTRIAL STUDY

Boston Redevelopment Authority
Planning Department
SOUTH BOSTON District Planning Program

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INTRODUCTION

In a recent study titled Boston's Jobs and Land, the City's Economic Development and Industrial Commission (EDIC) has found that generally:

> The incomes of Boston's city government and individual households are inadequate. The City of Boston has an income that does not permit it to provide adequately the level of governmental services that its residents -- both household and business -- need, deserve, and demand. Furthermore, a large number of families and individuals subsist on an income that confines them to less than a modest standard of living. This lack of income means that government must provide many special services which would not be needed otherwise.[1]

The Commission suggests that the best economic strategy for solving the City's two edged problem of inadequate income is to expand the number of high paying job opportunities for Boston residents.

The Commission's analysis of Boston's economy indicates that the manufacturing sector offers the most potential for meeting this objective. Manufacturing also provides a higher job entry level for members of minority groups.

Unlike other sectors of Boston's economy which are downtown oriented, however, manufacturing has received little public attention

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1 Boston Economic Development and Industrial Commission, Boston's Jobs and Land, March, 1970, p. 5.

or assistance. For example, while manufacturing declined by 45,000 jobs during the past 20 years, services grew by 30,700 jobs and finance, insurance and real estate by 23,000 jobs.[2] Manufacturing, therefore, has been selected as the major sector requiring EDIC's immediate attention and the sector which should be favored by city assistance and economic development policy and programs.

The Boston Industrial and Commercial Survey recently completed by EDIC clearly indicates that the need for expansion space for manufacturing operations far outranks all other factors cited by firms currently thinking of leaving Boston. Yet, surprisingly enough, Boston has land for industrial development. In fact some 46 million square feet of vacant and underutilized land presently zoned for industrial use has been identified within the City.[3]

According to the Commission, the question is: "What is the best method of acquiring and disposing of this space resource for manufacturing uses at a price which is competitive with the cost of comparable land outside of Boston?"[4] At the same time the sites should be carfully planned to yield the maximum return to Boston's residents and industrial firms.

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2 Ibid., p.20

3 Ibid., p. 6

4 Ibid.,

One of the areas most appropriate for future industrial development is the Waterfront -- Industrial Sector of South Boston. This report will discuss several of the trends which have led to the general decline of the area. It will then outline specific problems and opportunities to be found in each of the district's 13 sub-areas. From these problems and opportunities a set of objectives will be suggested for the future improvement of the area. Finally, a concept plan for the district's redevelopment will be presented.

It is hoped that this work will provide a basis for discussing the South Boston area's development possibilities and will eventually lead to the formulation of City policies in this regard.

BACKGROUND

The South Boston Waterfront -- Industrial Sector was once a viable part of the primary shipping center of New England. Ocean - going vessels docked in its excellent, deep-sea harbor to make connections with the area's extensive railroad network, which had the capability of distributing goods anywhere in the country. During the past several decades, however, this valuable district has experienced tremendous economic and physical declines. Several of the more important reasons for these changes have been: (1) increasingly non-optimal seaport operating conditions, (2) reduced importance of the railroads, (3) inadequate connections to the region's highway system, (4) and relatively high land costs.

Seaport

A study of Boston's seaport conducted for the BRA by APT Associated, indicates that four major problems have seriously affected the area's port activity. They are as follows:

a. Economic and Locational Factors

New England's exporting industry is now primarily high value, low volume goods, such as electronic equipment which, due to increased air cargo capabilities, are becoming less dependent on shipping. Boston's location as the first U. S. port of call for shipping from Europe makes it attractive for imports but not for exports.

b. Operation Inefficiencies

The high cost and low productivity of labor, pilferage, long ship turn-around times, and resulting high port charges constitute major operational problems.

c. Facility Inadequacies

Boston's facilities suffer from inadequate security, access, truck marshalling areas and handling equipment. Their geographical dispersal adds significantly to their overall inefficiency.

d. Technological Advances

Increased ship size, containerization and other capital intensive rather than labor intensive changes are rapidly altering shipping operations. Boston's lack of responsiveness to these changes put it in an increasingly disadvantageous position.[5]

Clearly, both the facilities and operating methods of South Boston's seaport must be vastly improved if the district is to enjoy even an average amount of activity in future years.

Railroads

It should be no surprise that with the ever increasing importance of trucking and air cargo operations, those railroads serving Boston's industrial areas currently are relied upon by a rather small percentage of industrial firms. In a survey conducted by the City's Economic Development and Industrial Commission, the following breakdown was obtained:[6]

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5 Robert Lurcott, Port Study -- Summary of Findings, Implications, Outside Interest and Strategy for Use, (memo to BRA Director, John Warner), January 29, 1970, pp. 5-6

6 Boston Economic Development and Industrial Commission, Boston's Industry, March, 1970, p. 18.

TRANSPORTATION MODE	PERCENT OF RESPONSES
Trailer trucks	38%
Small or van trucks	24
REA, UPS, Parcel Post	15
Air Cargo	11
Railroad	7
Water transport	3
Other	2
	100%

Although a small percentage of the REA, UPS, Parcel Post category is shipped by rail and air, most of it is sent by trucks. This means that truck freight was listed as the major mode of transport by approximately 70% of the firms sampled. This trend has left about 120 acres of rail yards in South Boston either vacant or extremely underused.

It is interesting to note that although the survey found that chemicals and precision instruments presently rely more heavily on rail than the average for all industries, these firms also use air cargo more than the average. And although the paper and food industries depend more than others on rail transport, they have an above average dependence on trucking.[7]

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7 Ibid.

As air cargo and trucking further increase in importance, these firms, too, may lose their need for rail facilities.

The survey also found that 80 percent of Boston's major manufacturing supplies are nonlocal and 40 percent are nonregional. In addition, 87 percent of allocated employment is nonlocal with 46 percent nonregional. Among other things, this information suggests that the relationship of Boston's industries to the area's highway network will be crucial to the efficient operation of these firms in the years to come.[8]

Roads

As is the case throughout Boston, South Boston's industries rely heavily on trucking for the transportation of raw materials and the delivery of finished products. Moreover, the sole function of many firms in the area is the delivery of materials and products. It is evident, then, that the districts industries need an efficient road system to link them with other parts of the Boston region.

Yet at the present time much of the truck traffic which is destined for other parts of the city and main highways to surrounding areas, is being routed through South Boston's residential and business sections, disrupting its local shipping areas and exposing its residents to traffic hazards. The situation has become so serious that a report recently completed for the Massachusetts Port Authority states:

> . . .the progress of South Boston-a major economic slice of Greater Boston -- is being tragically halted by the current obstacles to efficient transportation of goods and services . . . Traffic is being reduced to a crawl by double parking, busy intersections, detours, numerous traffic lights and pedestrian congestion.[9]

Obviously, as the report points out, a trucking artery, linking the South Boston industrial community with the region's expressway system and Downtown Boston, will be a necessary step toward revitalizing industrial activity in the area.

Land

South Boston's Waterfront -- Industrial Area contains approximately 200 acres of vacant and underutilized land which presently is zoned for industrial use. This land, however, is too expensive to compete with suburban locations which range in cost from $100 to $5,000 per usable acre.[10] There simply is no land in Boston that sells for $.10 per square foot. This land cost problem is the principal impediment to industrial development and expansion within the City.

If land for industrial park development could be assembled in South Boston and its cost written down to compete with prices in outlying areas, and if adequate highway access were provided, the

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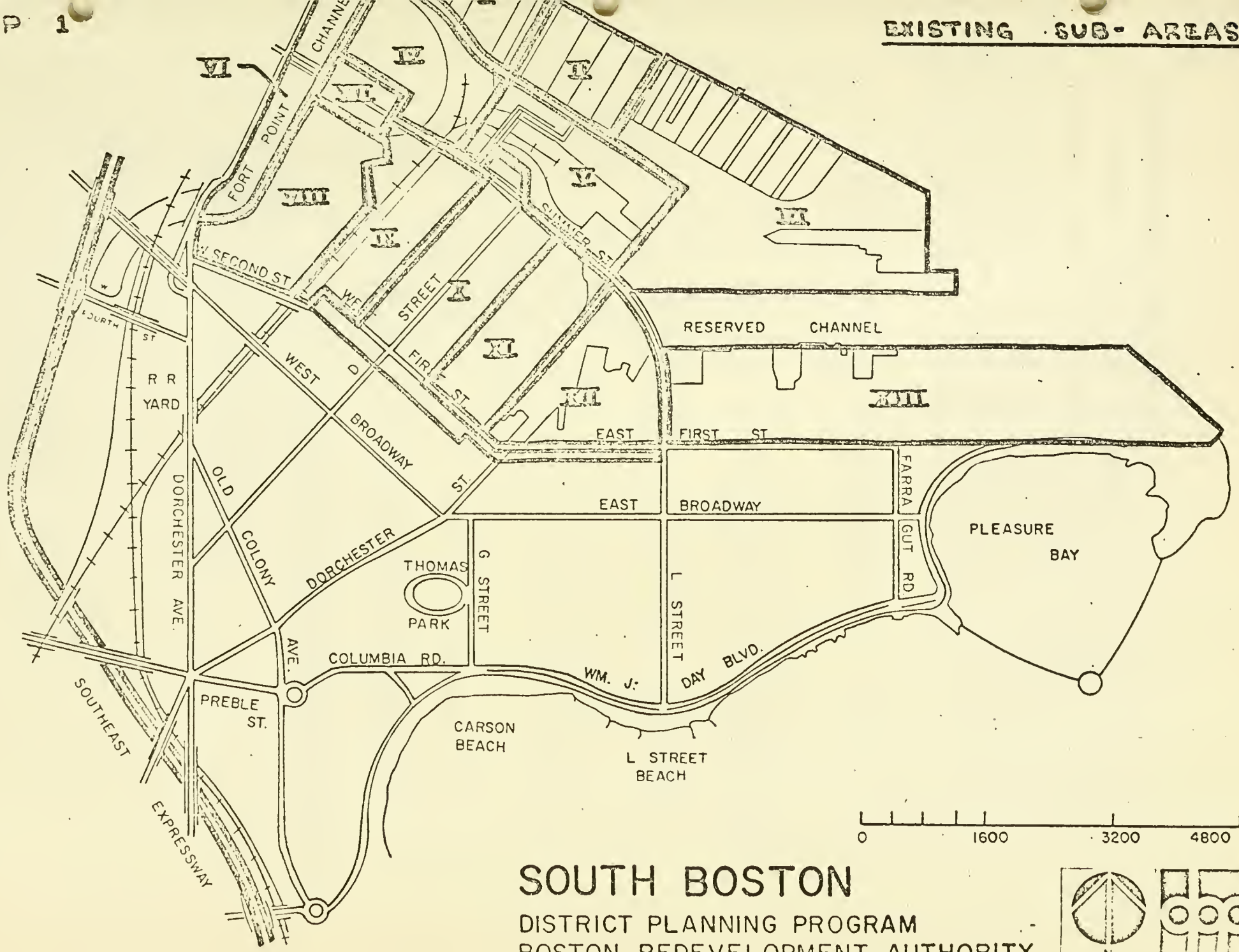
9 Massachusetts Port Authority, South Boston's Traffic Strangle - - A Suggested Plan of Improvement, p. 2.

10 Tina Freeman, Industrial Parks -- Planning Guidelines, March, 1970, p.3.

City of Boston whould be well on its way to restoring this industrial area to its once viable position in the region's economy.

MAP 1

EXISTING SUB-AREAS



SOUTH BOSTON

DISTRICT PLANNING PROGRAM

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SUB-AREA PROBLEMS AND OPPORTUNITIES

In order to gain a clearer understanding of the changes that have occurred in South Boston's Waterfront -- Industrial Sector, it will be useful to break the area into 13 sub-areas for more specific analysis. From the problems and opportunities found in these sub-areas a set of guidelines and finally a concept plan will be developed.

I. Piers 1-4
(35 acres of vacant and underused land)

A. Present situation

1. Pier 1: Recently purchased by Anthony's Pier 4, Inc. to be used for parking (This area probably will receive high intensity development in next few years).

2. Pier 2: Presently being developed by Pier 2, Inc. (Anthony Athanas) as a 22-story hotel and rooftop restaurant complex.

3. Pier 3: Owned by Anthony but not developed.

4. Pier 4: Present site of Anthony's Pier 4 Restaurant.

B. Issues and problems

1. Piers 1 and 3 are undeveloped at the present time.

2. This section of the waterfront is developing in a non-optimal way because of a lack of comprehensive planning.

3. Transportation to Downtown Boston and the metropolitan area is inconvenient and inadequate for future development.

II. Commonwealth and Fish Piers
(33 acres of vacant and underused land)

A. Present situation

1. Commonwealth Pier (5) contains modern cold storage facilities. It also serves as the point of arrival and departure for ocean-going, passenger vessels.

2. Fish Pier (6) presently is in dilapidated condition.

B. Issues and problems

1. The Fish Pier should be demolished and the area put to a more modern and intensive use.

2. The fish industry is becoming less picturesque and increasingly noxious. This will make it a less agreeable neighbor in future waterfront and industrial development.

III. South Boston Navy Base
(216 acres)

A. Present situation

1. The Navy plans to leave its Charlestown facility.

2. In anticipation of this move, the Navy plans to spend $200 million during the 1970's to consolidate in South Boston.

3. When completed the South Boston Base will employ about 8,000 civilian personnel, many of whom will be transferred from Charlestown.

B. Issues and problems

1. The transportation system presently linking the South Boston Navy Base with the Boston region is inconvenient and inadequate for a development of this magnitude. (The streets serving the Base already are used to capacity during peak hours).

2. Alonzo B. Reed Associates, as part of a study for the Navy, has proposed a monorail system from North Station and Downtown Boston to South Boston to alleviate the transportation inadequacies of the area.

IV. Warehousing, wholesaling, and rail yards
(30 acres of vacant and underused land)

A. Present situation

1. Most of the buildings in this area are multi-story and are of brick construction. Many contain viable businesses.

2. Much of the real estate has been purchased by trustees of Boston Wharf Co.

3. The remainder of the district contains rail yards owned by Penn Central Co. Parts of these unneeded yards have been paved and are currently being used for trucking operations.

B. Issues and problems

1. Buildings and land are being purchased apparently for speculative purposes.

2. Streets and loading systems are inadequate for today's vehicles.

3. The area's rail yards presently are a waste to their owners and to the City.

V. Rail yards
(35 acres of vacant and underused land)

A. Present Situation

1. These yards, owned by the Massachusetts Port Authority, currently are mostly unused.

2. The southeastern portion of the yards is being leased to a private firm for industrial development.

3. Viaduct Street leading from Summer Street to Commonwealth Pier is elevated.

B. Issues and problems

1. The transportation system presently serving this area is inconvenient and inadequate.

2. The rail yards currently are a waste to their owners and to the City.

VI. Fort Point Channel
(41 acres - mostly water)

A. Present situation

1. The water in the Channel is very polluted from sewerage outflow, but tides would clean it out if the sources of pollution were intercepted.

2. The Channel is used for the storage of tug boats.

3. The Channel presently is an unpleasant barrier between Downtown Boston and a possible extension of CBD activities on the South Boston side.

4. The Massachusetts Turnpike Authority has developed plans to extend I-90 along the southeast side of the Channel and then into a tunnel beneath the Harbor to connect in East Boston with C-1.

B. Issues and problems

1. The Massachusetts Turnpike Authority's plan to locate an expressway along one side of Fort Point Channel would add to the psychological barrier between South Boston and the CBD already caused by the Channel.

2. The turnpike Authority's plan would bring heavy truck traffic through commercial areas along Summer Street and Northern Avenue in South Boston (parts of which are pleasant and architecturally significant) to access points on the new road.

3. The plan would generate an excessive amount of local traffic near the junction of the new road with Northern Avenue and with Summer Street.

4. If an alternate route to the one selected by the Turnpike Authority is considered, no Harbor crossing can be constructed within one mile of the existing Harbor tunnels unless it is built by the Turnpike Authority (State legislation).

VII. Office and wholesaling
(9 acres)

A. Present situation

1. The area's multi-story, brick buildings are architecturally significant.

2. This is a viable office, service, and wholesale district.

3. Many of the buildings have been modernized.

B. Issues and problems

1. The area presently is cut off the remainder of South Boston by the destroyed Summer Street Bridge over the Penn Central tracks (The City and Penn Central cannot agree upon whose responsibility it is to rebuild the bridge).

2. The notable architecture of this district should be preserved.

VIII. Gillette, Boston Wharf, and others
(22 acres of vacant and underused land)

A. Present situation

1. Gillette has built a large new facility along Fort Point Channel which employes 3,400 people.

2. Boston Wharf owns most of the remainder which is either underutilized or occupied by multi-story, brick buildings used for loft commercial or manufacturing purposes.

3. Boston Wharf may be considering the development of an industrial park in this area.

B. Issues and problems

1. Much of the area, which presently is vacant or underutilized, could be put to a more productive use.

2. Traffic from this district uses residential streets to the south.

IX. Rail yards
(56 acres of vacant and underused land)

A. Present situation

1. The yards are owned by Penn Central.

2. The yards are mostly unused.

B. Issues and problems

1. The transportation system presently serving this area is inconvenient and inadequate.

2. The rail yards currently are a waste to their owners and to the City.

X. Food processing, trucking, and manufacturing
(9 acres of vacant and underused land)

A. Present situation

1. The area contains a mixture of building types and conditions.

2. Many of the buildings house viable food processing and storage industries.

3. Ownerships in the area are varied.

B. Issues and problems

1. Road, parking, and loading facilities in the area are inadequate and obsolete.

2. Some of the food dealers may relocate in the New Food Market presently under construction along the Southeast Expressway.

3. Many of the buildings are old and in need of repair.

4. The area appears to have a blighting effect on nearby residential properties.

XI. Former "E" Street U.S. Naval Annex
(39 acres of vacant and underused land)

A. Present situation

1. The area is mostly vacant with the exception of a few minor Navy-related buildings and some new construction.

2. This land currently is being developed as an industrial park by "E" Street Associates. (Two industrial buildings are finished and a third is under construction).

B. Issues and problems

1. The transportation system presently serving the area is inconvenient and inadequate for future industrial development.

2. The area should be planned as a part of the overall development objectives of the South Boston Waterfront -- Industrial Sector.

XII. Heavy industry, electrical equipment, and unused inlet of water
(37 acres of vacant and underused land)

A. Present situation

1. About half of the area contains a water inlet that serves no apparent useful purpose.

2. Of the remaining land, part is occuppied by heavy manufacturing (steel fabricating, etc) and electrical equipment owned by Boston Edison. The rest is vacant.

B. Issues and problems

1. Part of the tract presently under water could be filled, but "ecologists" may balk.

2. Truck traffic, which presently disrupts the residential community to the south, will continue to increase as the area develops.

XIII. Industrial area south of Reserved Channel
(122 acres of vacant and underused land)

A. Present situation

1. With the exception of several major industrial developments, this area, which is owned by the Massachusetts Port Authority, is mostly underutilized.

2. The Massachusetts Port Authority has constructed one containerized seaport facility in the area, which currently is leased by the Sea Land Company but is little used.

3. The Port Authority seems to have abandoned further development in the area in favor of new facilities in Charlestown and East Boston.

B. Issues and problems

1. If further seaport development takes place on the Port Authority's land in South Boston, part of the Army Base should be used for the handling of general cargo, which may conflict with the Navy's plans.

2. The roadway system in the Reserved Channel area will be inadequate to handle the traffic which my be generated by further port development, thus increasing the already heavy flow of traffic through South Boston's residential areas.

SUMMARY

The previous analysis of the thirteen sub-areas found in South Boston's Waterfront -- Industrial Sector has pointed up some major problems and opportunities which can be summarized as follows:

I. Waterfront

A. South Boston's waterfront presently is being redeveloped is an unplanned and non-optimal way.

B. Several piers are still underused or vacant.

C. The seaport potential of the Reserved Channel is underdeveloped.

D. Fort Point Channel presently is an unpleasant barrier between South Boston and Downtown Boston and is a complete waste to the City.

II. Inland rail yards and industrial properties

A. Although industries currently are leaving the city because of a lack of expansion space, there are some 200 acres of vacant and underused land in South Boston's inland industrial sector that could be redeveloped for industrial use.

B. Speculation presently is taking place on land and buildings in the area.

C. Trucking and industrial firms on the fringes of this area are disrupting nearby residential sections.

D. Overall planning and coordination are needed to insure optimal reuse of the area.

III. Transportation

A. Poor roadway access to the area is retarding industrial development and causing heavy trucks to use residential streets.

B. Poor circulation, parking, and loading provisions within the area inhibit industrial development.

C. When the Navy completes its consolidation in South Boston, the present transportation system will not be adequate to handle the increased traffic which will be generated.

D. Present roads also will not be adequate to handle increased seaport development or intensive commercial development of the waterfront.

E. The Massachusetts Turnpike Authority's plan to locate a third Harbor crossing in Fort Point Channel would generate an excessive amount of traffic in the vicinity, which would be especially unwise because of the area's proximity to several already congested on and off ramps to the Southeast Expressway.

OBJECTIVES

From the foregoing analysis of South Boston's Waterfront -- Industrial Area, certain objectives can be spelled out for the future redevelopment of the district.

I. Waterfront

A. To insure coordinated development of vacant and unused piers and other waterfront properties to maximize public (pedestrian-oriented) use of these areas.

B. To encourage intensive, private commercial development near the waterfront.

C. To retain and increase, if possible, waterfront -- industrial job opportunities, especially those connected with Navy and seaport operations.

II. Inland rail yards and industrial properties

A. To encourage redevelopment of these areas for modern industrial (preferably manufacturing) use with adequate security provisions and future expansion space.

B. To relate industries in this section to those at Logan Airport.

C. To stop industrial encroachment in the northern residential areas of South Boston and to encourage the revitalization of these neighborhoods

III. Transportation

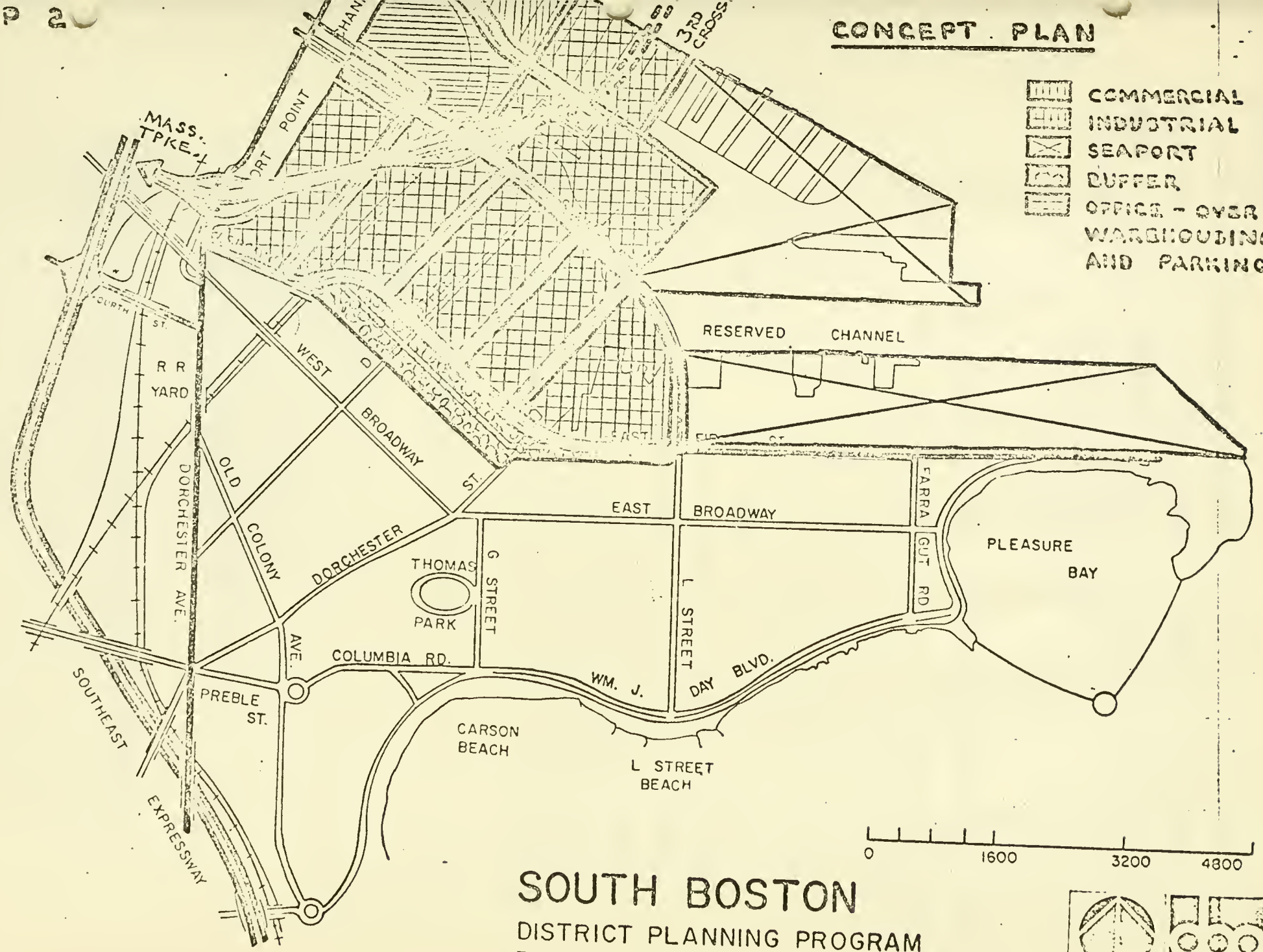
A. To provide adequate roadway access to the South Boston Waterfront -- Industrial Area and to improve circulation, parking, and loading within the district.

B. To improve public transit to and within the area.

C. To provide a transportation connection with the airport.

D. To develop an efficient by-pass of Downtown Boston from the Massachusetts Turnpike and the Southeast Expressway to C-1 and I-95 in the north.

MAP 2



SOUTH BOSTON

DISTRICT PLANNING PROGRAM
BOSTON REDEVELOPMENT AUTHORITY

CONCEPT PLAN

To insure that the objectives just outlined will be realized in the redevelopment of the South Boston Waterfront -- Industrial Area, a general concept plan has been developed (see Map 2). The elements of this plan will be explained in the remaining pages of this report.

I. Waterfront

A. Piers 1-4

If this valuable part of the South Boston Waterfront is to be of maximum benefit to its owners and to the City in future years, careful planning and coordination must begin now. To encourage the optimal use of the area, the following recommendations, many of which were developed as part of a proposed cooperation agreement between Pier 2, Incorporated and the BRA, should be considered:[11]

1. The area's present waterfront -- industrial zoning should not be altered until owners in the district agree to submit complete plans for future redevelopment to the BRA. This could be done under a PDA Agreement. The plans should include long-range development objectives with land uses and building masses indicated.

a. Appropriate land uses would include:

Motels
Restaurants
Parking structures
Specility shops
Theaters
Waterfront tourist attractions
Marinas
Docking facilities for cruise lines
Pedestrian walkways and sitting areas
Office and commercial space

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11 Boston Redevelopment Authority, Proposed Cooperation Agreement with Pier 2, Incorporated, May, 1969, pp. 1-4

b. The development plans should indicate automobile, truck, and pedestrian access to and circulation within the area.

c. Pedestrian open spaces and visual access to the harbor should be provided.

d. Building masses and uses should be so located as to permit visual and physical access to the Harbor and waterfront from Northern Ave.

e. Buildings should be planned so as not to adversely affect major views from Boston's Downtown Waterfront and CBD areas.

f. Maximum protection from unfavorable weather conditions should be provided within the area.

2. The developers of this district should designate an architect -- planner to serve as the overall development -- design coordinator with the BRA.

3. Improved roadway and public transit facilities should be constructed to link the area with North Station, South Station, and the Downtown Waterfront.

B. Fort Point Channel

The Channel presently is an unpleasant barrier between South Boston and Downtown Boston. Two courses of action would seem appropriate to correct this situation.

1. Obtain federal funds to improve the area for commercial and water-oriented recreation. This would involve.

a. Construction of a sewerage system to intercept the outfalls presently polluting the Channel.

b. Reconstruction of the Northern Avenue Bridge at a level sufficient to allow passage of small boats beneath.

c. Development of the banks for pedestrian use with many of the same provisions suggested for Piers 1-4.

2. Fill the Channel partially or completely for future development purposes which may include:

a. Office and commercial space above parking and warehousing. (The same restrictions governing height and massing would apply here as in the Pier 1-4 Area)

b. A major recreation complex with a stadium, boating facilities, restaurants, hotels, commercial space, etc.

C. Commonwealth and Fish Piers

These piers should be improved for waterfront industrial -- commercial purposes. This would involve:

1. Development of an adequate transportation system to serve the area.

2. Reconstruction of the badly dilapidated Fish Pier.

D. South Boston Navy Base and Reserved Channel Area

If the Navy is to make a successful move from Charlestown to South Boston, transportation facilities serving the base must be improved. Such improvements also will help to foster efficient seaport operations in the Reserved Channel Area. Two steps could be taken.

1. Develop an adequate roadway system from the area to Boston's highway network which would not pass through residential or commercial areas.

2. Develop a comfortable and convenient public transit system linking the area to North Station, Downtown Boston, South Station, and peripheral parking areas. This could be part of the system needed to serve Piers 1-4.

II. Inland Rail Yards and Industrial Properties

Boston's Economic Development and Industrial Commission has stated that it will be advisable to encourage manufacturing firms to remain in the City in future years. Many of the firms now thinking of leaving feel that a lack of expansion space is their most pressing problem. Yet, South Boston's Waterfront -- Industrial Area contains over 200 acres of vacant or underused land which, in part, could meet this need though development of five intown, industrial parks (see Map 2).

A. Industrial Parks

In a recent paper titled Industrial Parks: Planning Guidelines, Tina Freeman suggests the following planning criteria and land use controls for use in developing industrial parks of this nature:[12]

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12 Tina Freeman, Industrial Parks: Planning Guidelines, March, 1970, pp. 1-3

1. General Layout

Flexibility is extremely important to the developer and the tenants. A variety of site sizes must be available within the park to attract various industries. Expansion space must also be available. To achieve this flexibility, block planning is often utilized. The blocks may be of different sizes with access streets at irregular intervals, alternative plant site depths, and frontage distribution.

It should be noted that "phase development" is often utilized to develop the park. Basically, it involves developing the park in economically feasible stages so that money is not tied up for a long period of time in interim construction loans and land acquisition financing.

2. Site Specification

Lot sizes are generally 1-5 acres. Lot depths are 200-500 feet. Building sizes are limited to 10-50,000 sq. ft. per floor. Site coverage by structures is usually limited to 50%, primarily because expansion space must be Available. Building set backs are 30-100 feet for the front yard and 20-30 feet for the side yard.

Design controls for the buildings are included in the restrictive convenants of the industrial park. They are comparable to the design controls established by the BRA Urban Design Department. Strict sign controls are established. Open storage is generally prohibited unless properly screened or fenced. Landscaping is required for each site.

3. Traffic Circulation and Street Layout

Streets must be well planned for adequate traffic circulation and good access to individual sites. Generally there is a main street which provides primary access to the area outside the park, and ideally connects to a major highway. The local service streets connect to the collector and provide access to the individual lots. Streets must have adequate load

bearing capability in relation to the type of trucking activity.

Loading areas must be off-street on individual lots. Parking requirements are determined by either number of employees or building square footage. Parking must be off-street and is usually permitted on the sides and to the rear of the buildings.

4. Utilities

The development of an industrial park includes the provision of water mains, sewer pipes, electricity and/or gas, (often) rail lines, and facilities for disposal of industrial waste.

Generally speaking high service water mains 12" cement lined are provided with branch lines of 8". Fire hydrants should be available at a ratio of one hydrant per two industrial sites, or about one hydrant per 120,000 sq. ft. Some industries may require more water than can be provided by this system and additional service should be provided by the industries themselves.

Surface drainage must be provided, although an underground storm drainage system may be prohibitive. The pipes for this system should be 18" and 15".

Sanitary sewers generally use 12" and 6" pipes. The system should be based on the following information: per capita flows (55 gallons waste flow/day), estimated peak sanitary sewerage flow, and public sewer capacity.

Provision of electicity and/or gas is generally negotiated with the public utility companies concerned. If rail lines are desirable, they must be procured through the railroad servicing the area. Street lighting is provided by the City and electric company. Police and fire alarms must be available. If traffic signals are necessary, particularly at the entrance to the park, they too must be provided.

5. Tenant Selection

Restrictive covenants of the park provide for tenant selection by type of products manufactured or performance standards. Due to the concern for pollution, performance standards in terms of smoke, noise, odor, vibrations, heat, light, and industrial waste provide better guidelines.

A number of Federal programs might provide economic aid for industrial parks development. Technical assistance loans are available from the Economic Development Administration (EDA) for survey and planning. Roads and utilities may be financed through City and Federal programs, and if Boston were an EDA "Designated Area", construction grants of up to 50% would be available. In addition, State urban renewal funds could be used, and a developer also could be guaranteed a consistent tax rate through State 121(a) legislation. Finally, State legislation presently is being introduced to create the Boston Harbor Conservation and Development Corporation, which would have bonding power to assemble and redevelop vacant and underused land.

B. Conservation and Rehabilitation of Existing Facilities

Sub-areas IV and VI contain some architecturally interesting buildings. Rennovation standards should be written and enforced where deemed appropriate in these sections.

C. Buffer

A buffer consisting of a truck route, parks, and institutional and commercial uses should be constructed in the presently dilapidated

area between South Boston's Waterfront -- Industrial Sector and the residential area to the south. One of the institutional uses which might be placed in the buffer area is the new South Boston High School scheduled for construction during the next few years. Title VII money perhaps could be used to develop some recreation space as well.

III. Transportation system

Second only to the difficulty of finding and assembling inexpensive land in the South Boston Waterfront -- Industrial Sector, poor roadway transportation has been a major factor in the area's decline. There also is a tremendous need for a third Harbor crossing and expressway bypass of Downtown Boston. The following projects should be undertaken to improve the area's transportation system:

A. Third Harbor Crossing

1. A new, 4-lane tunnel, such as the one proposed by the Massachusetts Turnpike Authority, but further into the South Boston industrial area, should be constructed in the near future. This tunnel would link the Massachusetts Turnpike and the Southeast Expressway with C-1 and I-95 to the north and provide an effective highway bypass of Boston's CBD to the south (see Map 2). The new road also would become the South Boston

Industrial Area's link to Boston's expressway system. The reasons for moving the road out of Fort Point Channel and into the industrial area to the south are as follows:

a. The road would run through vacant or underused land (mostly rail yards).

b. This route would provide enough space for the construction of interchanges at Dorchester Avenue and Summer Street and would cause far less traffic congestion in the South Station area than the Turnpike Authority's present proposal.

c. It would serve as a better link with Logan Airport than the current proposal and would cause less disruption of the East Boston community in the vicimity of the airport.

2. This third Harbor crossing should be included in Governor Sargent's recently commissioned study of the Boston area's transportation needs.

3. The new road and tunnel could be built either by the State DPW using 90-10 money (since it is more than 1 mile from the existing tunnels) or by the Turnpike Authority.

4. Air-rights development should be planned for both the South Boston for both the South Boston and East Boston approaches to the tunnel in order to minimize the loss of valuable urban land usually associated with highway construction.

B. Arterials and Collectors

An arterial and collector street system should be constructed that will divide the entire area into a series of super-blocks to be developed as industrial parks, commercial complexes, etc. The road system in the shape of a loop, would extend from Fort Point Channel area and

connect with the bypass (described above) at Dorchester Avenue and Summer Street. This arrangement will draw most industrial, Navy, and seaport traffic away from the South Boston residential community and channel it efficiently on to the bypass.

C. Local Streets and Utilities

The developer of each super-block should provide adequate local streets, parking, and loading facilities along with necessary utilities. If a corporation is established to coordinate the development of the entire area, it would bear the burden of providing secondary roads and utilities.

D. Railroads

Although railroad transportation has greatly decreased in importance during recent years, rail spurs, and yard storage areas still will have to be made available to industrial firms which may locate in South Boston in the future. These rail facilities should be carefully worked into the overall development scheme.

E. Public Transit

A comfortable and convenient public transit system must be incorporated into the planning of this area to alleviate present traffic congestion and to serve the Navy, the seaport, and industrial and commercial complexes suggested for future development.

The mono-rail system proposed by Alonzo B. Reed Associates (mentioned earlier) should be given serious consideration along with other forms of rapid transit. Perhaps part of the system could extend to the airport.

SUMMARY AND CONCLUSION

The two most serious problems which appear to be inhibiting development of some 200 acres of prime industrial and in the Waterfront -- Industrial Section of South Boston are high land cost and poor transportation facilities. Yet, something can be done to alleviate both of these difficulties and thus to retain the manufacturing firms presently planning to leave the city and attract some new ones as well. This report has attempted to spell out the many steps necessary to solve this complex problem.

It is evident that if this part of the City is to be redeveloped for more productive use, a tremendous amount of coordination will be necessary among City, State, Federal and private organizations. Funds are available from various sources, but first a plan and implementation strategy must be agreed upon by city officials and then pursued with reason and conviction. This area must not develop in a haphazard and non-optimal way. It is just too important to the people of Boston.

APPENDIX

TABLE I

VACANT AND UNDERUSED LAND IN SOUTH BOSTON'S WATERFRONT -- INDUSTRIAL SECTOR

LOCATION AND DESCRIPTION	SQ. FT.	ACREAGE	PRESENT USE	SUGGESTED REUSE
Area I				
Piers 1-4	1,594,000			
	-51,000		Anthony's Pier 4	
	1,543,000	35	Vacant piers	Waterfront commercial
Area II				
Commonwealth and				
Fish Piers	1,940,000			
	-480,000		Commonwealth Pier	
	- 40,000		Jimmy's	
	1,420,000	33	Vacant and deteriorated piers	Waterfront Commercial/industrial
Area III				
South Boston				
Navy Base	9,416,750	216	Navy activities	
Area IV				
Warehousing,				
Wholesaling,				
and rail yards	2,230,900			
	-942,200		Industrial buildings,	
	1,288,700	30	trucking sheds, and under-used rail yards	Office parks with warehousing and parking below
Area V				
Rail yards	2,254,200		commercial and	
	-712,000		industrial buildings	
	1,542,200	35	under-used rail yards	Industrial park
Area VI				
Fort Point				
Channel	1,794,800	41	Water	
Area VII				
Office and			6-8 story	Office and related
Wholesaling	393,800	9	loft buildings	service

TABLE I -- continued
VACANT AND UNDERUSED LAND IN SOUTH BOSTON'S WATERFRONT -- INDUSTRIAL SECTOR

LOCATION AND DESCRIPTION	SQ. FT.	ACREAGE	PRESENT USE	SUGGESTED REUSE
Area VIII				
Gillette, Boston Wharf, and others	3,039,900			
	-2,040,800		Gillett and others	Office and research
	999,100	22	Dilapidated buildings and unstructured parking	
Area IX				
Rail yards	2,480,800			
	-54,000		Industrial buildings	
	2,426,800	56	Underused rail yards and dilapidated buildings	Industrial park
Area X				
Food processing, trucking, and manufacturing	3,966,900			
	-3,583,800		Buildings	
	383,100	9	under-used rail spurs	Industrial space
Area XI				
Former "E" St. Naval Annex	2,675,800		Recent industrial development	
	-983,500			
	1,692,300	39	Mostly vacant land	Industrial park
Area XII				
Heavy industry electrical equip. and water inlet	2,346,000		Industrial building and electrical equip.	
	-740,000			
	1,606,000	37	Vacant land and unused channel	Industrial park
Area XIII				
Industrial area south of Reserved Channel	7,936,300		Boston Edison	
	-1,050,000		White Fuel and	
	-1,570,000		others	
	5,316,300	122	Vacant and under-used land	Consolidated seaport

TABLE II
DEVELOPMENT POTENTIAL
IN SOUTH BOSTON'S WATERFRONT -- INDUSTRIAL SECTOR

PROPOSED USE	AREA	GROSS AREA IN ACRES	APPROXIMATE FLOOR/AREA RATIO	POSSIBLE FLOOR AREAS IN SQ. FT.
Manufacturing	V	35	.5	762,300
Manufacturing	IX	56	.5	1,219,680
Manufacturing	XI	39	.5	849,420
Manufacturing	XII	37	.5	805,860
		167		3,637,260
Industrial	X	9	15	196,020
Warehousing and parking (below offices)	IV	30	1.0	1,306,800
Waterfront commercial	I	35	5.0	7,623,000
Waterfront commercial:				
Industrial	II	33	2.0	2,874,960
Container Part	XIII	122	1.0	5,314,320
		190		15,812,280
Navy Base	III	216		
Fort Point Channel	VI	41		
Office and commercial (above warehousing and parking)	IV	30	10	13,068,000
Office and research	VIII	22	10	9,853,200
		52		22,921,200

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